

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Group Art Unit: 3624

Examiner: L.M. Hamilton

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Groveport, Ohio

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closing means selectively operable to close said
 said peripheral wall of said first tubular portion;
 FIG. 6: 190 + Col. 5: 60-66 *any closure can be anywhere on*
 a second tubular portion formed of silicone and *only 4 type*

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2. An orthosis according to Claim 1, comprising a reinforcing means for providing a further resistance to plantarflexion of the patient's foot.

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 AG. 6: 200, 282
 210, 212
 W.S. 67 + col. 6: 7

3. An orthosis according to Claim 2, wherein the reinforcing means comprises a length of tape, a first end and a second end of the tape being joined together to form a figure-of-eight passing under the instep, behind the ankle and crossing on the dorsal aspect of the foot.

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4. An orthosis according to Claim 2, wherein the reinforcing means comprises a rib running along at least a portion of the dorsal aspect of the foot and substantially midway between the medial malleolus and the lateral malleolus.

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5. An orthosis according to Claim 4, wherein the rib is of plastics.

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6. An orthosis according to Claim 4, wherein the rib is of silicone.

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7. An orthosis according to Claim 4, wherein the rib is of polypropylene.

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8. An orthosis according to Claim 4, wherein the rib is of ortholene.

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9. An orthosis according to Claim 4, wherein the rib is of carbon fibre.

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10. An orthosis according to Claim 4, wherein the reinforcing means has a greater resilience than the resilience of said first and second tubular portions.

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11. An orthosis according to Claim 1, wherein said opening comprises an insertion slit extending substantially midway between the medial malleolus and the lateral malleolus at the back of the ankle towards the calcaneum.

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provided
at other
locations

12. An orthosis according to Claim 11, wherein the closing means comprises a mechanical hook and loop fastener, a set of hoops or hooks being provided on one side of the slit and a corresponding set of hooks or hoops being provided on a closure member affixed to the other side of the slit, respective hooks and loops being connectable to securely close the slit.

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13. An orthosis according to Claim 11, wherein the closing means comprises a zip fastener secured to opposite sides of the slit.

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Cal. 5:60-65

14. (Canceled)

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15. An orthosis according to Claim 1, wherein said second tubular portion does not envelop the patient's toes.

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16. An orthosis according to Claim 1, wherein said second tubular portion does not envelop the patient's calcaneum.

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17. An orthosis according to Claim 1, wherein the first and second tubular portions are of 35 shore silicone elastomer.

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18. An orthosis according to Claim 1, wherein the orthosis is skin coloured.

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19. An orthosis according to Claim 1, wherein the orthosis is fabricated by injection moulding.

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20. An orthosis according to Claim 1, wherein the orthosis is stamped or pressed from sheet material.

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- 21. (Canceled)
- 22. (Canceled)
- 23. (Canceled)
- 24. (Canceled)
- 25. (Canceled)
- 26. (Canceled)
- 27. (Canceled)

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28. An orthosis according to Claim 6, wherein said rib is integrally formed with said first and second tubular portions.

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29. An orthosis according to Claim 2, wherein said reinforcing means comprises a first region of said peripheral wall of said first tubular structure and a second region of a peripheral wall of said second tubular structure, wherein said first and second regions are contiguous and a resilience of said first and second tubular portion peripheral walls inside said first and second regions is greater than a resilience of said first and second tubular portion peripheral walls outside of said first and second regions.

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30. An ankle-foot orthosis according to Claim 1, wherein said first tubular portion and said second tubular portion together define a generally L-shaped cavity.

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31. An ankle foot orthosis for resisting plantarflexion of a patient's foot, the orthosis comprising:

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a resiliently flexible L-shaped silicone structure having a first tubular portion, and a second tubular portion that is at least partly contiguous with said first portion and is formed integrally therewith, the structure having an outer surface consisting of a first region having a first resilience and a second region with a second resilience that is greater than said first resilience;

wherein said structure is configured so that said second region overlies at least a portion of a dorsal aspect of the patient's foot and a portion of the patient's lower leg when the orthosis is worn by the patient, said second region

DYC-011 Clean Claims 7/10/03

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being provided to augment the resistance to plantarflexion of the patient's foot provided by the silicone structure of the orthosis.

32. (Canceled)

33. An ankle-foot orthosis according to Claim 1, wherein said second tubular portion additionally envelopes both the patient's toes and the patient's calcaneum ← D

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34. An ankle-foot orthosis according to Claim 1, wherein said first and second tubular portions are formed by manually applying a silicone elastomer to a cast of the patient's foot.

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